Abstract of the Disclosure

IMPROVED PROCESS FOR SYNTHESIZING TACKIFIER RESIN

This invention is based upon the unexpected discovery that the reactivity of the most important monomers commonly used in synthesizing tackifier resins with aluminum halide catalysts can be enhanced by conducting the polymerization in the presence of an allylic halide. For instance, the conversions of 2-methyl-2-butene, cis-piperylene, and cyclopentene that are attained in polymerizations that are catalyzed with aluminum halide catalysts are increased by conducting the polymerization in the presence of an allylic halide, such as allyl chloride. Increased monomer conversion is of great commercial importance because it leads to an increased level of efficiency and reactor capacity. The present invention more specifically discloses a process for synthesizing a resin having characteristics that make it particularly useful as a tackifier resin, said process comprising the polymerization of an unsaturated hydrocarbon monomer mixture in the presence of aluminum halide and an allylic halide, wherein the unsaturated hydrocarbon monomer mixture is comprised of unsaturated hyrdocarbon monomers containing from about 4 to about 18 carbon atoms, and wherein said process is conducted in the absence of tantalum compounds. The subject invention further reveals a process for synthesizing a resin having characteristics that make it particularly useful as a tackifier resin, said process comprising the polymerization of an unsaturated hydrocarbon monomer mixture in the presence of aluminum halide and an allylic halide, wherein the unsaturated hydrocarbon monomer mixture is comprised of monomers including but not limited to 2-methyl-2-butene, cis-piperylene, trans-piperylene, cyclopentene, and additional unsaturated hyrdocarbon monomers containing from about 4 to about 18 carbon atoms, wherein said process is conducted in the absence of tantalum compounds.